WHAT IS CLAIMED IS:

1. A positioning apparatus for an extensible device, the extensible device having a first plate and a second plate, the positioning apparatus comprising:

at least one first magnetic component of a first magnetic polarity, configured on the first plate;

at least one second magnetic component of the first magnetic polarity, configured on the first plate; and

at least one third magnetic component of a second magnetic polarity, attracting the first magnetic polarity, and configured on the second plate;

wherein when a relative position between the first plate and the second plate is changed to make a magnetic attraction between the first magnetic component and the third magnetic component greater than a magnetic attraction between the second magnetic component and the third magnetic component, the second plate and the first plate moves relatively and is positioned in a first position, and wherein when the relative position between the first plate and the second plate is changed to make the magnetic attraction between the first magnetic component and the third magnetic component less than the magnetic attraction between the second magnetic component and the third magnetic component, the second plate and the first plate moves relatively and is positioned in a second position.

2. The positioning apparatus of claim 1, wherein the first plate is a device body, and the second plate is a slide cover.

3. The positioning apparatus of claim 1, wherein the first plate is a slide cover, and the second plate is a device body.

4. The positioning apparatus of claim 1, wherein the positioning apparatus further comprises a first sliding component and a second sliding component, the first sliding component is configured on the first plate, and the second sliding component is configured on the second plate, wherein the first sliding component is slidingly connected to the second sliding component.

5. The positioning apparatus of claim 4, wherein the first sliding component is a plurality of sliding trenches, formed on two sides of the first plate separately, and the second sliding component is a plurality of sliding slices, formed on two sides of the second plate corresponding the plurality of sliding trenches.

6. The positioning apparatus of claim 1, wherein a material of the first magnetic component, the second magnetic component and the third magnetic component is a magnet.

7. The positioning apparatus of claim 1, wherein a material of the first magnetic component, the second magnetic component and the third magnetic component is magnetic powder.

8. A positioning method for a slide cover of a portable electronic device, the portable electronic device having a device body and the slide cover, wherein the slide cover moves between a first position and a second position, the positioning method comprising:

forming a first magnetic attraction between the device body and the slide cover; and

forming a second magnetic attraction between the device body and the slide cover;

wherein when the slide cover is moved to make the first magnetic attraction greater than the second magnetic attraction, the slide cover moves to the first position, and when the slide cover is moved to make the first magnetic attraction less than the second magnetic attraction, the slide cover moves to the second position.

9. The positioning method of claim 8, wherein the step of forming the first magnetic attraction comprises:

providing a first magnetic component of a first magnetic polarity to be configured on the device body; and

providing a second magnetic component of a second magnetic polarity to be configured on the slide cover;

wherein the first magnetic polarity and the second magnetic polarity attract each other.

10. The positioning method of claim 8, wherein the step of forming the second magnetic attraction comprises:

providing a first magnetic component of a first magnetic polarity to be configured on the device body; and

providing a second magnetic component of a second magnetic polarity to be configured on the slide cover;

wherein the first magnetic polarity and the second magnetic polarity attract each other.